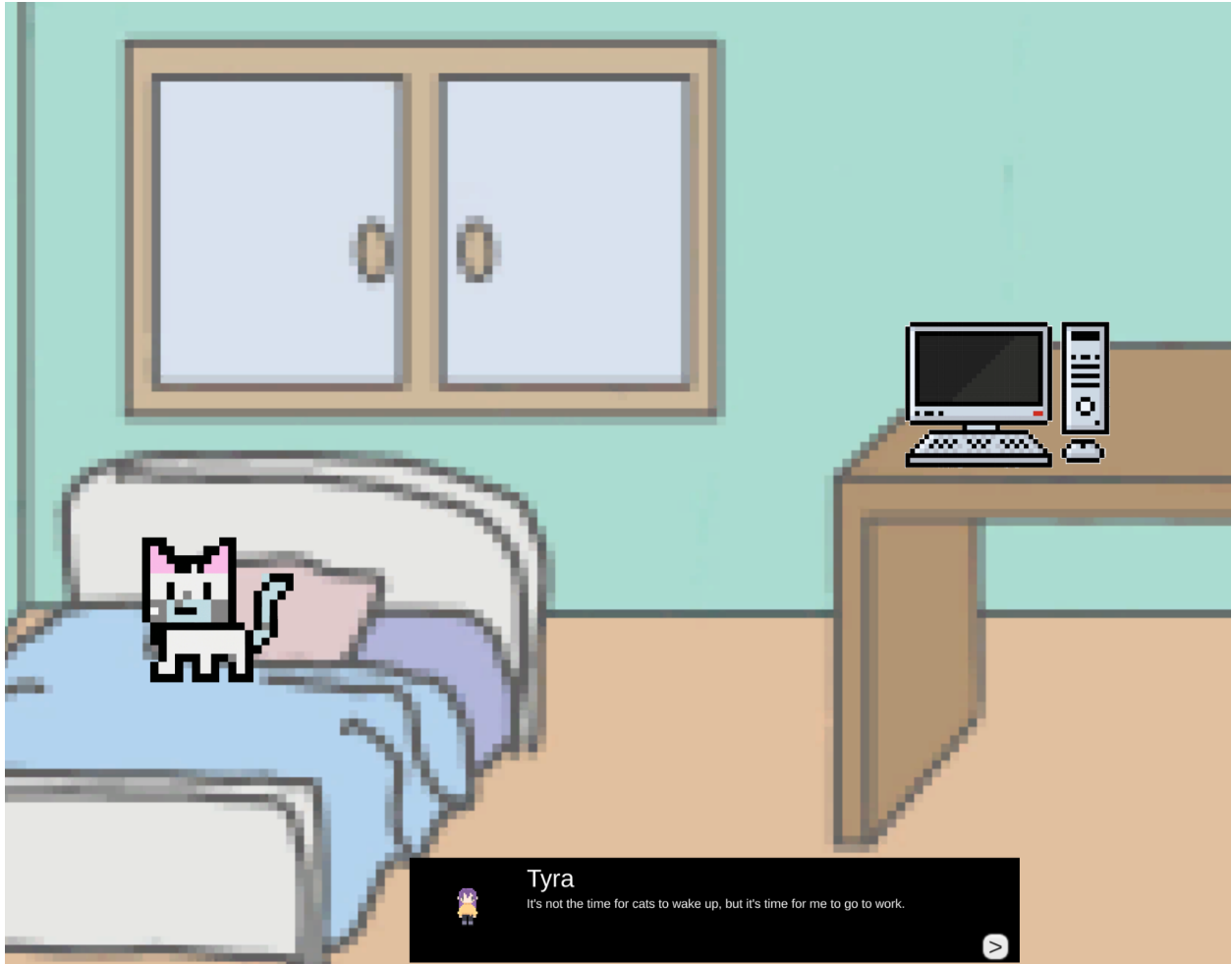


# Design Document

*Love, Cat & Robot*



Group 6

02.10.2023

## Player experience and Game Concept

In the world of the game, the player will control a character called **Tyra** and explore the virtual world. As the player progresses through the storyline, they will encounter various characters, and their choices will determine how the storyline goes. There are two main NPCs, one is the cat, who is Tyra's pet; the other one is Derek, who is an artificially intelligent virtual assistant that Tyra purchases(similar to the setting of movie *Her*). Tyra can talk to them everyday beside working, and along the way, she will uncover the world's secrets and reach one of many endings. The details about the storyline are shown in the section *Narrative* and *World Building*.

During gameplay, the player will feel engaged and intrigued, driven by the need to uncover all the hidden secrets to unlock the whole story. This will compel them to continue characters, puzzles and enemies. The player must choose how to interact with each character when playing our game. Since there are multiple endings to the game, if the player does not reach one of the true endings, they will feel dissatisfied because the story has not been fully completed.

The game's overall vibe will begin relaxed and happy as the player completes simple, repetitive tasks in the form of a fighting game. As the player progresses through the story and truths are revealed, the game will take on a different vibe by playing creepier background music and sprinkling metafictional elements into the story, which help set a much more sinister undertone to the game.

The game aims to target the young audience aged 18-24 years old. With the similarity in the form of the game Undertale, the majority of players of this game might be male.

## **User interface design**

### **Control scheme, Camera models & User interface elements**

The player can interact with the game smoothly with a keyboard. The player will use WASD to move and mouse click to interact with the NPCs.

There are three scenes in this game, which are Room, Road and Combat. All of the scenes have a painted background. A painted background can help create a more immersive game environment by providing a sense of depth and atmosphere. It can help draw players into the game world, making it more engaging and memorable. Also, the painted background is efficient in terms of performance compared to other types of backgrounds that require a lot of computational resources to render. The painted background art style would be pixel arts, creating a retro and nostalgic aesthetic.

In most scenes, the camera mode used is a static third-person perspective, which enhances immersion by allowing players to see their character's movements and interactions with the game world. This can help players feel more connected and improve the overall narrative experience, with a clearer perception of the environment.

When interacting with NPCs, this game will have a contestant-based interaction model, choosing from one or more choices. This could make the experience more engaged and enjoyable, motivating participants to put in more effort to achieve their goals. The different choices would lead to different endings. When performing the combat, this game will have an avatar-based interaction model. That is, the players control a small bullet hell representing themselves, and they are trying to avoid random strikes within a specific area.

### **Information deliverable**

After opening the game, the player would see a menu that allows them to choose from starting a new game, continuing, or loading savepoint. After entering the game, there would be a day indicator on the top of the screen that counts the days as the game has 15 cycles that, at the end of day 15, the game will come to one of the multiple endings.

In the home scene, the player can interact with a cat(NPC) on the bed. A notebook that the player can do self-reflection is on the desk, the notebook will record the actions the player takes during that day, and when the player opens the self-reflection, one day is

considered to reach the end and the next day starts.

In the road scene, on the left side, there is an arrow pointing to home, and on the right side, there is an arrow pointing to a fighting arena, which is to indicate the location of those. In the middle of the road scene, there is a building of DCBW.

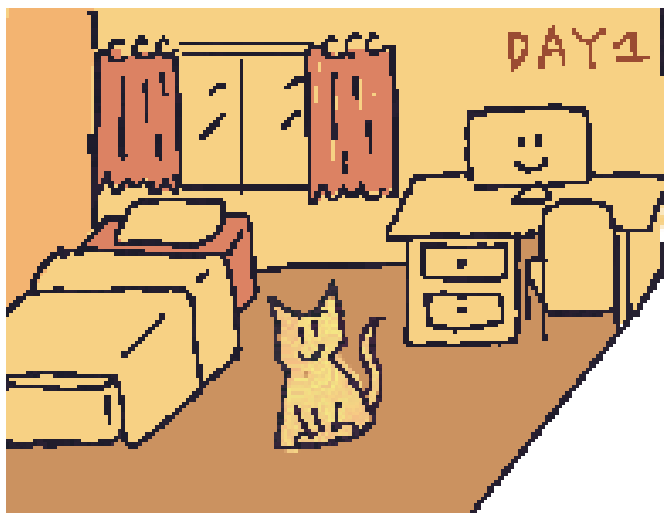
In the fight arena scene, the player will automatically enter a dialogue with her enemy, like the typical pleasantries between colleagues. The minigame starts after the pleasantries end.

## Feedback

1. Feedback will show up when one day passes. The screen will turn black for about one second, and the number shown in the upper right corner will add one.
2. When talking to the NPCs in the morning, they will give a hint of what Tyra needs to do.
3. In the fighting game, there shall be an indicator that reflects the current HP of the main character.
4. After clicking the buttons, there are sound effects to indicate that buttons are clicked.

## Mock-ups

### Basic layout in Tyra's room



The tone of the screen is warm. The player can click on the cat or the computer on the desk to start a conversation with the cat/Dreke.

## Dialogue



After clicking on either cat or the computer, a dialogue box appears, which contains the name and sprite of the speaker, and the content of the dialogue.

## A sample minigame layout



The main character is represented by the red heart on the screen. The little square indicates the range that the heart can move in. The sprite of the enemy is shown above the square. The white bars and dots show the attacks, and the player needs to move the

heart within the square and avoid the attacks.

As feedback, the HP of both characters (the main character and the enemy) are shown on the left. The one on the top is for the enemy, and the other is for the main character.

## Reference

The user interface refers to the design of the game Undertale. <https://undertale.com/>

## Mechanical design

### Core gameplay loop

This game is a story-telling game with fighting elements. The main character is a virtual character working in a fighting game. A typical day for the main character is to work, get back home, communicate with her virtual companion or cat, and do self-reflection when popped. She would repeat 15 days before the game ended.

In work, she would need to fight and be controlled by the player, like in a typical fighting game. And in the self-reflection process, she would go through a dialogue with herself and organize the information she got that day. She needs to realize her real identity as a virtual character, and the cat monitors her to make corresponding decisions before the game ends to unlock the true endings.

### Main actions

The main gameplay actions available are player movement, interaction with NPCs to engage in storyline dialogue, and combat to defeat monsters. These actions are directly caused by the user interface interpreting player input.

First of all, movement will be implemented using a side scroll using keyboard input (A and D). That is, directional controls are relative to the player's character, and the movements will be applied instantly as the direction keys are pressed.

The main player experience of this game is narration – progressing through the storyline. Therefore, the main progression mechanics will be dealt with by interaction with NPCs. Passive challenges related to this activity are navigation to particular locations on the map or talking to specific NPCs. The overall goal of this game is to reach one of many endings by progressing through the storyline, and the choices they make during their interaction will determine how the storyline goes. These challenges will help the players uncover the secrets of the world.

Between the storylines, players must engage in challenges such as combat with monsters. Such active challenges help to keep the players entertained and at the same time, allow them to acquire clues and items that help them progress through the story. In the prototype, we have one such minigame interface implemented. This will be a sort of physical coordination challenge where the players use WASD keys to dodge the enemies.

## Challenges

### Actions and Mechanics

When the player wins/loses in the fighting game in a certain pattern (for instance, win but not attack her enemy, or lose by doing exactly nothing), the player will unlock some extra options in the dialogue with her cat or companion.

Each choice in each dialogue will change the properties of the main character. The main character's properties will include but are not limited to self-discovery, pessimism, world-weariness, skepticism, belief in authority, intimacy with the cat, and intimacy with the companion, etc. The properties will not be shown to the player until self-discovery reaches a target value. If the self-discovery reaches the target value, there will be an extra button in the scene of the main character's home, which can list all the properties of the main character.

In the minigame, the player will experience loops of defense and attack. In the defense part, the player will control a heart to move within a square to avoid attacks by the enemy. And each time the heart gets attacked, the HP value of the main character will minus 1. In the attack part, the player can choose to attack the enemy or skip this turn. There is a certain probability that the enemy chooses to end the minigame before the HP of anyone reaches zero. If the HP of anyone reaches zero, the minigame automatically ends.

### How it supports player experience

In the world of this game, the main character is supposed to identify herself as a human being. She would regard the fighting game as her job and the enemies encountered as her colleagues. Therefore she can make decisions regarding this assumption. The design of the challenges is meant to provide a sense of reality for the players that, even though the main character is a virtual character in a game, she still has her own ability to think and choose. It helps the player experience immersing into this story and sharing the feelings of the main character.



## Game play modes

There is only one mode in our game. The interaction mechanisms, camera models, and sets of challenges are listed in the former parts.

## System in game design

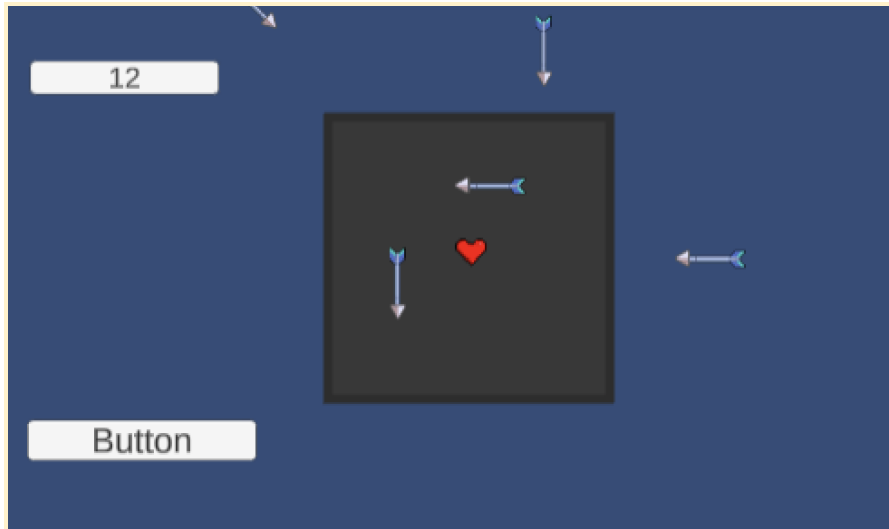
Players will move their character on the map by using WASD keys. The map is a side scroller, and players can move in front of interactable elements. Interacting with the interactable elements on the map may be performed by standing in front and pressing the enter key.

Combat will be turn-based and involve minigames. They will select an option in combat using the WASD keys and the enter key to confirm their selection, and the success of that option depends on their performance in the minigame. The minigame is a bullet hell controlled by the WASD keys. During combat, the player will have an original HP value, and after getting hit X times, the player loses the battle. After every time getting hit, the player will become impervious to all attacks for 0.5 seconds, and the UI will reflect the loss of life. Each battle minigame lasts a different amount of time (depending on the enemy the player is fighting against), and the story changes depending on the result of the combat.

This encourages players to engage, make decisions that affect the story, and motivate players to learn about the story.

## Example

### Combat/Minigame



Here is an example of the minigame for combat. The square on the left upper corner shows the HP value of the main character, the square indicates the range the heart can move, and the arrows represent the attacks. The player needs to control the movement of the heart using WASD to avoid attacks.

### Dialogue



Here is an example of the dialogue system. The player clicks an NPC to start the conversation, and the sprite, name of the speaker and the lines are shown in the dialogue box. The player can click the button with the text “>” to continue.

## Reference

The form of the combat is borrowed from the game Undertale. <https://undertale.com/>

The idea of mechanics design is influenced by the game Disco Elysium.

[https://en.wikipedia.org/wiki/Disco\\_Elysium](https://en.wikipedia.org/wiki/Disco_Elysium)

## Non-mechanical design

### Narrative and world building

This game is about a virtual character who works in a fighting game. She recognized herself as a human being at the beginning of the game.

The main character identifies herself as a human being at the beginning of the game. With the process of the game, she would discover some clues which suggest her real identity as a virtual character. Not only that, but she also discovered that her cat is actually a means for the government authorities to monitor her. Everything in her life is controlled by the government, and all she has is an artificial intelligence companion.

The main character would need to find the hints and make corresponding decisions. The player would help the main character to run away from her predicament. There are multiple endings prepared for this game.

If the main character is not aware of her identity and the many anomalies in her life, then she will not be able to trigger most of the story. Players might even think this is just a normal fighting game with an unnaturally high amount of dialogue. If she realizes her situation but doesn't find out that the cat is monitoring her, the government will eventually find out about this character, delete her memory, and start the game over. Neither of these counts as a true ending.

If she realizes her situation and finds the cat watching her. Then comes the real choice. She can choose to kill or expel the cat that has been watching her in exchange for the possibility of escape. No matter which one she chooses, her AI companion will learn her behavior and use different methods to help her escape.

### Visual aesthetics

The visual style of the game is based on pixel art with low resolution, creating a retro and nostalgic aesthetic. Three main game components need visual design.

- Characters – Characters include the main character, that is, the main character, some enemies, and other NPCs. All these characters have unique functions and personalities, so their appearances will be designed to correspond to their distinct personalities, combined with a retro low pixels style. For example, some good

NPCs can be designed using bright colors in pixels, but the bad monsters will use dark colors. In this way, players are able to discern who this is and what this will do.

- Environment – The basic background will also change its visual design to accommodate the gameplay mode. There could be using black or red color palettes to create a creepy environment or using yellow, and green color palettes to create a cozy environment. The changing environment and visual aesthetics could influence the game's vibe, giving players various player experiences.
- Combat mode: When players enter the combat mode, there should be different visual components such as the fighting area, health point, and easy, pixelated attacking animation shown on the screen. All these components should be clear, and simple enough so that players can understand what they should do.

All these components are designed in simple, distinct color pixels, to provide clear and varied feelings to players.

### **Audio assets**

The game will use 8-bit music as the sound effect and soundtrack, which features simple melodies and repetitive rhythms.

For the sound effect, there should be simple but concise short music to demonstrate what happens. For example, a short click sound showing the player clicking the selection successfully or using door opening and closing to demonstrate the scene changing. The sound effects give feedback to players in a way showing confirmations by a sound effect, creating interactions with the player experience,

The background music should match the game atmosphere. When the players are in combat mode or in a creepy environment, the background music would be low-toned or fast-paced to show the tension. When the players are in regular mode, the background music must be chill or delightful. The background sound should create a sense of immersion for the players.

For the dialogues with NPCs, players can only hear the typing sounds when they are talking with NPCs. This would ensure that players will not be distracted by the music and only focus on the dialogues with NPCs. Also, with music, players could have more images of the current situation.

The simple but distinct sounds make it easy to recognize and create a cohesive and

immersive experience for players.

## **Potential map/ level designs**

### **Potential map**

The map inside the game is composed of three parts. One road, with one end with the main character's home, and the other end with the scene of the fighting game, i.e. where she works every day.

### **Level designs**

The game would be implicitly divided into three levels. The player would not be informed of the specific level or the main task, it is also the player's task to find out what the task is. In the first level, the main task of the main character is to realize she's not a human being but a program. When this task is completed, the player reaches the next level. Here the main task is to realize the pet cat is monitoring her. And when this task is completed, the player reaches the final level, which is to get away from this dilemma.

## **Reference**

N/A

## Inspirations

Inspired by the novel 1984, the episode Black Mirror, and the movie The Truman Show, we designed a political metaphor storyline, hoping to discuss the impact of public power on personal life and whether people should live in beautiful lies.

In the form of a game, we borrowed the style and narrative logic of Undertale. Players would immerse themselves in the happy fighting game first and gradually realize the dark and tough side of the story. Besides, Undertale prepared multiple endings for the players and showed a probability of not killing even in a fighting game. It explores the relationship between the main character and the enemies encountered. Besides winning or losing, there are also other things to be taken into account: friendship, understanding among characters, company and fun, etc. We have to say it carries a lot more than a simple fighting game. We would love to imitate the spirit of exploring and discussing serious topics in our game.

At the same time, we are influenced by Disco Elysium, showing the awakening of the main character's self-awareness in the form of dialogue with herself. Also, just like many RPG games, every decision made by the main character in Disco Elysium influences where the story goes. We also borrowed these ideas when designing our game.